

Full steam @ tGOLEM - Basic diagnostics

Golem #42479 x Golem #39417 x +

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#0 GW bkms Devices Tools HowTos Apps CZ->EN pSQL Meet GitLab cTC Dropbox Experimen

GOLEM - Shot #39417




Tokamak GOLEM - Shot Database - #39417

The date of discharge execution	22-06-15 17:30:01
The session mission	22_Phd_Vladislav -> RE session
The session ID	39404
The discharge comment	Po vypeceni _Dingent.sh -discharge -UBt 1150 -Tbt 0 -Ucd 500 -Tcd 1000 -preionization 1 -gas H -pressure 10 -diagnostics &interimovcoil
Discharge command	*main_switch='on'/radial_switch='on'/vertical_wavform=3000,0,12000,-10,22000,0,30000,0'/vertical_switch='on'/radial_wavform=20

Technological parameters

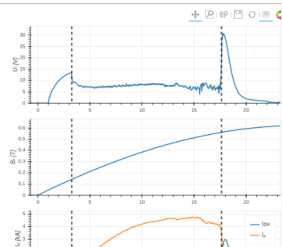
Plasma:   

- Working Gas: $P_{\text{discharge, before}}=2,00$ mPa; $P_{\text{discharge, after}}=3,19$ mPa ($P_{\text{WG}}^{\text{control}}=10$ mPa @ $X_{\text{WG}}^{\text{control}}=H$)
- Toroidal magnetic field: $I_{\text{t}}^{\text{control}}=1150$ V @ $I_{\text{t}}^{\text{control}}=0,0$ us
- Current drive field: $U_{\text{t,d}}^{\text{control}}=500$ V @ $I_{\text{t,d}}^{\text{control}}=1000,0$ us

Plasma parameters:   

- Loop voltage: $\overline{U_{\text{loop}}}=7,60$ V; $\max_{v(t)}(\text{discharge}) U_{\text{loop}}=9,81$ V; $U_{\text{breakdown}}=11,45$ V
- Toroidal magnetic field: $\overline{B_{\text{t}}}=0,40$ T; $\max_{v(t)}(\text{discharge}) B_{\text{t}}=0,56$ T
- Plasma current: $\overline{I_{\text{p}}}=4,19$ kA; $\max_{v(t)}(\text{discharge}) I_{\text{p}}=4,74$ kA; $t_{\text{p}}^{\text{max}}=14,84$ ms

Basic Diagnostics



The figure displays three vertically stacked plots showing diagnostic data over time (0 to 20 ms). The top plot shows the rate of change of current, dI/dt (A/V), with a sharp peak around 17 ms. The middle plot shows the toroidal magnetic field, B_t (T), which increases linearly from 0 to approximately 0.5 T. The bottom plot shows the plasma current, I_t (kA), which rises to a peak of about 4.7 kA around 17 ms before dropping. Vertical dashed lines indicate key time points in the discharge sequence.


Full steam @ tGOLEM - On stage diagnostics

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



















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GOLEM » Shot #39417 »



On stage diagnostics

	Data flow	measurement	digitization	Raw data	analysis	Analysis results
Basic Diagnostics	Experiment setup					
Radiometer @shortwest midplane port					Without Analysis	
HXR probes						
MHD ring probe @horakblaha port						
Double rake probe @horakblaha port						

Other diagnostics

Full steam @ tGOLEM - Off stage diagnostics

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Diagnostics

- BasicDiagnostics
- DoubleTakeProbe
- FastCameras
- FWTProbes
- Interferometry
- LimiterMimovCoils
- MimovCoils_TM
- Prasonator
- RailProbe
- TimepixDetector

Other

- Wiki
- Showroom

Navigation

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- Previous
- Current

Go to shot

39417 Go

Golem utils

- Home
- Plot data
- Shot interval plot
- Manipulators control

Other diagnostics

Data flow	measurement	digitization	analysis	
Name	Experiment setup	Data acquisition system	Raw data	Analysis results
Timepix Detectors				
Interferometry				
Rail probe				
Mimov coils @Limiter				
Fast Cameras				

Analysis

Full steam @ tGOLEM - Infrastructure

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GOLEM = Shot #39417

Diagnostics

- BasicDiagnostics
- DoubleTakeProbe
- FasicCarriers
- FOCProbes
- Interferometry
- LimiterMimovCoils
- MHDring_TM
- Radometer
- RailProbe
- TimepaDetector

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Rail probe

Mimov coils @ Limiter

Fast Cameras

Analysis

Name Analysis results

Infrastructure

main_switch=on',radial_switch=on',vertical_wavform=3000,0;12000,-10;22000,0;30000,0',vertical_switch=on',radial_wavform=2000,0;3000,0;9000,0;12000,-10;24000,0;25000,0'

Blacing electrode

Stabilization

Acknowledgement